THE IDENTITY OF SOME FERN TYPES IN THE THUNBERG HERBARIUM

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ABSTRACT

Among the ferns described by Thunberg in his Descriptio Caenopteridis (1795) and in his Prodromus Plantarum Capensium (1800), there are a few whose identity has been uncertain for many years. However, an examination of the holotypes in the Thunberg Herbarium has made it possible to establish the identity of these taxa.

Polypodium tottum Thunb.

Christensen, in his Index Filicum (1906), referred this with some doubt to the genus Dryopteris, while Sim (1915) considered it a possible synonym of *Dryopteris africana* (Desv.) C.Chr. The holotype, which consists of a single sterile frond without a rhizome, is annotated as having been collected by Thunberg at the Cape. It is clearly a specimen of what is currently known as *Cyclosorus gongylodes* (Schkuhr) Link. The sheet is also annotated "*A. unitum M.*" by Mettenius which can be taken to mean that he misidentified this specimen as the closely related *Cyclosorus unitus* (L.) Ching. Juel (1918), apparently following Mettenius' opinion, referred it to "*Dryopteris unita* (L.) O. Ktze. ?".

Polypodium tottum Thunb. (1800) obviously antedates *Aspidium gongylodes* Schkuhr (1809), the basionym of *Cyclosorus gongylodes* (Schkuhr) Link, making a new combination necessary. However, as the genus Cyclosorus cannot be segregated satisfactorily from the genus Thelypteris in the opinion of the author and other contemporary pteridologists, the new combination proposed here for this taxon is *Thelypteris totta* (Thunb.) Schelpe comb. nov. (Basionym: *Polypodium tottum* Thunb., Prod. Fl. Cap.: 172 (1800)).

Judging from the known distribution of this fern in South Africa and the fact that Thunberg only travelled as far east as the Sundays River, near Port Elizabeth, this holotype was most probably collected near the hot springs at Brand Vlei near Worcester or in the Port Elizabeth—Uitenhage area.

Pteris confluens Thunb.

Christensen (1906), followed by Sim (1915), regarded this as a synonym of *Pellaea auriculata* (Thunb.) Fée. The specimen in the Thunberg Herbarium consists of two sterile fronds, which, without any doubt, can be referred to *Thelypteris palustris* Schott var. *squamigera* Schlechtend. The scales along the costae on the undersurface of the fronds, characteristic of the variety, are present.

Pteris cuspidata Thunb.

Although Sim (1915) regarded this as representing a juvenile form of Marattia, it was correctly assigned to the genus Angiopteris by Christensen (1906). The holotype consists of a portion of a sterile frond and is most probably a specimen of *Angiopteris evecta* (Forst.) Hoffm. which Thunberg could have collected either during his stay in Java in 1776–1777 or on his visit to Ceylon in 1777–1778.

Caenopteris auriculata Thunb.

Asplenium thunbergii Kunze is a *nomen novum* for *Asplenium auriculatum* (Thunb.) Kuhn non Swartz of which the basionym is *Caenopteris auriculata* Thunb. This species has been attributed to South Africa for over a century and a half and South African specimens have been named *A. auriculatum* (Thunb.) Kuhn or *A. thunbergii* Kunze at least since the publication of Kuhn's Filices Africanae (1868).

The South African taxon identified as *A. auriculatum* or *A. thunbergii* is not known to occur south of Natal and it is virtually certain that Thunberg could not have collected this taxon in South Africa as he only travelled as far as the Sundays River in the vicinity of present-day Port Elizabeth. Consequently, a tracing and drawings of the holotype of *Caenopteris auriculata* Thunb., made in Uppsala, were compared with Asiatic species of Asplenium which Thunberg might have collected on his visits to Japan, Java and Ceylon. It became evident that Thunberg's holotype is conspecific with Javanese specimens of *Asplenium belangeri* (Bory) Kunze. As was pointed out by Holttum (1954), this is a later homonym of *Asplenium belangeri* Bory so that it is most probable that *Asplenium thunbergii* Kunze is the correct name for *Asplenium belangeri* (Bory) Kunze non Bory.

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